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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,040	02/25/2004	Dale H. Anderson	TUC920030175US1 (17239)	4421
46263 7590 03/16/2007 SCULLY, SCOTT, MURPHY, & PRESSER 400 GARDEN CITY PL GARDEN CITY, NY 11530			EXAMINER SUN, SCOTT C	
			ART UNIT 2182	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/787,040	ANDERSON ET AL.	
	Examiner	Art Unit	
	Scott Sun	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment to the claims, filed 12/28/2006 has been noted and entered. Previous rejections are withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7, 8, 10, 12, 14-16, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al (PG Pub #2002/0199073) in view of Yamashita et al (PG Pub #2005/0097243).
5. Regarding claim 1, Tamura and Yamashita combined discloses a method for copying data (figure 8), comprising: displaying a user interface (figure 8) from which a user selects a source storage resource (servers A-D) and a target storage resource (backup devices A-D; paragraph 42); and displaying available adapters (ports A-H), via the user interface, through which a path can be establish between the selected source

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storage resource and the selected target storage resource (figure 8); wherein the user selects at least one of the available adapters, via the user interface, to configure the path to copy data from the selected source storage resource to the selected target storage resource (figure 12; paragraph 46).

Tamura does not disclose explicitly the available adapters being dynamically updated. However, Yamashita discloses dynamically updating available adapters (ports S1P1, H1P1, etc, shown in device file mapping table 35; figure 8) as a function of at least detecting one or more failed paths (paragraph 348-350). Teachings of Tamura and Yamashita are from the same art of data path determination, and specifically of storage paths.

Therefore, it would have been obvious at the time of invention to combine teachings of Tamura and Yamashita by using the dynamic path failure detection mechanism of Yamashita in the system of Tamura for the benefit of easily detecting failed paths and establishing alternate paths (Yamashita, paragraph 27).

6. Regarding claim 2, Tamura and Yamashita combined discloses claim 1 and Tamura further discloses wherein the selected source storage resource and the selected target storage resource comprises respective storage servers (paragraph 29). Examiner notes that Tamura teaches copying data from one disk system with associated server to a backup device, where the backup device can also be another disk system. This disk system would also comprise a server.

7. Regarding claim 3, Tamura and Yamashita combined discloses claim 1 and Tamura further discloses wherein the user selects the selected source by selecting, via

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the user interface, a source storage server (servers A-D) and associated logical subsystem (ports A-H, paragraph 46).

8. Regarding claim 4, Tamura and Yamashita combined discloses claim 1 and Tamura further discloses wherein the user selects the selected target storage resource by selecting, via the user interface, a target storage server and an associated logical subsystem (ports A-H, paragraph 46, paragraph 29). Similar to claim 2, examiner notes that Tamura teaches copying data from one disk system with associated server to a backup device, where the backup device can also be another disk system. This disk system would also comprise a server.

9. Regarding claim 7, Tamura and Yamashita combined discloses claim 1, and Tamura further discloses wherein the path comprises a switched path (Tamura teaches the connection can be switched; paragraph 37), wherein at least one switch is provided between the selected source storage resource and the selected target storage resource; and the user selects an outgoing port of the at least one switch, via the user interface, to configure the path (paragraph 37). Examiner notes that Tamura teaches the connection between the source and target can be switched. The selection of ports would still be applied.

10. Regarding claim 8, Tamura and Yamashita combined discloses claim 1, and Tamura further discloses wherein the path comprises a switched path (Tamura teaches the connection can be switched; paragraph 37), wherein at least one switch is provided between the selected source storage resource and the selected target storage resource; the available adapters include target adapters (figure 12) that are associated

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with the selected target storage resource; and the user selects at least one of the target adaptors to configure the path (paragraph 46).

11. Regarding claim 10, Tamura and Yamashita combined discloses claim 1, and Tamura further discloses displaying dynamically-updated (changes made by user when viewing the information) status information (port grouping information), via the user interface, regarding the configured path (paragraph 47).

12. Claims 12, 14-16, 18, 19 are substantially to claims 1, 8 10. The same grounds of rejection are applied.

13. Claims 5, 6, 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Yamashita, further in view of Nguyen (PG Pub #2002/0001307).

14. Regarding claim 5, Tamura and Yamashita combined discloses claim 1 but does not disclose explicitly selecting path type and displaying adapters whose type is compatible with the selected path type. However, Nguyen discloses the user selects a path type, via a user interface (figure 5E, dropdown menu 944t), from among a plurality of different path types; and displaying available adapters comprises displaying available adapters whose type is compatible with the selected path type (port used with path).

Teachings of Tamura and Nguyen are from the same field of data transfers and specifically of path configuration.

Therefore, it would have been obvious at the time of invention for a person of ordinary skill in the art to combine teachings of Tamura and Nguyen by grouping

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adapters based on path type for the benefit of presenting user-friendly interface when configuring data paths.

15. Regarding claim 6, Tamura, Yamashita, and Nguyen combined disclose claim 5, but do not disclose explicitly the path types include unidirectional and bi-directional path types. However, given the teaching of Nguyen of displaying and selecting path types, it would have been obvious for one of ordinary skill in the art to display any path type relevant to the selection of adapters, which would include unidirectional and bi-directional path types.

16. Regarding claim 9, Tamura and Yamashita combined discloses claim 1, and Nguyen further discloses the configured path comprises a direct connection between the selected source storage resource and the selected target storage resource (figure 5T).

17. Regarding claim 11, Tamura and Yamashita combined discloses claim 1, and Nguyen further discloses a wizard (Path Configuration Wizard shown in figures 5A-5Z; paragraph 182), for guiding the user in selecting the selected source storage resource, the selected target storage resource, and the at least one of the available adapters.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Sun whose telephone number is (571) 272-2675. The examiner can normally be reached on M-F, 10:30am-7pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS


KIM HUYNH
SUPERVISORY PATENT EXAMINER

3/8/07